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A STUDY AND EVALUATION OF SELECTED
JOINT SERVICE PROGRAM MANAGED
MATERIEL ACQUISITIONS

STUDY PROJECT REPORT
PMC 76-1

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FORT BELVOIR, VIRGINIA 22060

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DEFENSE SYSTEMS MANAGEMENT SCHOOL

STUDY TITLE: A STUDY AND EVALUATION OF SELECTED JOINT SERVICE PROGRAM
MANAGED MATERIEL ACQUISITIONS

STUDY PROJECT GOALS:

- (a) To document the program for Joint Service Program Management of Mobile Electric Power Acquisitions.
- (b) To identify and document the unique management problems inherent in this approach to materiel acquisitions.
- (c) To determine the validity of this approach for other, selected materiel acquisitions.

STUDY REPORT ABSTRACT:

↳ This report examines

The purpose of this report is to examine a relatively unique approach to Joint Service Program Management of selected materiel acquisitions. The study was conducted by documenting the operations, accomplishments and problems experienced by the DOD Mobile Electric Power Project which was chartered in 1968 to manage the mobile electric power program for all four Military Departments. The Mobile Electric Power Project was then compared with two similar projects to determine the validity of this approach to project management. The other two programs were the DOD Aircraft Ground Fire Suppression and Rescue Project, chartered in 1968 and the DOD Surface Container-Supported Distribution Systems Development Project, established in 1971.

Of the three projects studied, only the Mobile Electric Power Project has achieved a significant level of success. One of the other projects was terminated 30 June 1975 and the other is currently being phased-out.

The report addresses some of the reasons for the limited success of these last two projects and documents lessons learned. Implications for future use of this approach are also included. ★

KEY WORDS

MATERIEL ACQUISITION JOINT REQUIREMENTS COORDINATED PROCUREMENT
PROCUREMENT REQUIREMENTS MANAGEMENT

PROCUREMENT MANAGEMENT-SYSTEMS ANALYSIS

KEY WORDS: Program Management

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May 1976

**A STUDY AND EVALUATION OF SELECTED
JOINT SERVICE PROGRAM MANAGED
MATERIEL ACQUISITIONS**

**Study Project Report
Individual Study Program**

**Defense Systems Management School
Program Management Course
Class 76-1**

by

**James Dee Haney
LTC U.S. Army**

May 1976

**Study Project Advisor
William H. Cullin**

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This study project report represents the views, conclusions and recommendations of the author and does not necessarily reflect the official opinion of the Defense Systems Management School or the Department of Defense.

EXECUTIVE SUMMARY

This report examines a relatively unique approach to project management. During the time frame 1967-71, the Department of Defense established three projects which were commodity rather than product oriented, had no projected termination date and were established to manage a program for all four Services. The three projects were the DOD Mobile Electric Power Project, chartered in 1967, the DOD Aircraft Ground Fire Suppression and Rescue Project, chartered in 1968 and the DOD Surface Container-Supported Distribution Systems Development Project chartered in 1971. The Mobile Electric Power Project has achieved a significant level of success. The Aircraft Ground Fire Suppression and Rescue Project is currently being phased-out after achieving limited success. The Surface Container-Supported Distribution Systems Development Project has also been discontinued with essential functions being returned to a new coordination group under the guidance of OASD (I&L).

This report examines the operations, successes and problems experienced by these three organizations and documents the lessons learned. Implications for decision makers contemplating use of this approach in the future are also included. The report concludes this program management approach is seemingly a viable concept; however, the unique management problems inherent therein make this method much less desirable than the more traditional form of project management.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	11
<u>Section</u>	
I. INTRODUCTION.	1
Purpose	1
Specific Goals of the Project	1
Scope	2
Organization of the Report.	2
II. BACKGROUND AND HISTORY OF THE MOBILE ELECTRIC POWER PROJECT.	3
III. METHOD OF OPERATION OF THE MOBILE ELECTRIC POWER PROJECT.	6
Funding	6
Procurement	7
Logistic Support.	8
Configuration Control	10
Problem Areas	11
IV. SUCCESS OF THE MOBILE ELECTRIC POWER PROJECT	13
V. A COMPARISON OF THE DOD MOBILE ELECTRIC POWER PROJECT WITH SIMILAR JOINT SERVICE PROGRAMS	19
Aircraft Ground Fire Suppression and Rescue System Project	19
Surface Container-Supported Distribution Systems Development Project	23
VI. AN EVALUATION OF THE JOINT SERVICE PROGRAM OFFICE CONCEPT FOR SELECTED MATERIEL ACQUISITIONS	27
VII. CONCLUSIONS	30
VIII. IMPLICATIONS.	31
BIBLIOGRAPHY	

SECTION I
INTRODUCTION

Purpose

The purpose of this paper is to examine a relatively unique approach to joint service program management of selected materiel acquisitions. In 1967, the Department of Defense caused the establishment of the DOD Mobile Electric Power Project. The Project was unique in that it was commodity rather than product oriented, had no projected termination date and was established to manage a commodity for all four Services.

This unique approach was further evident in the establishment by DOD of two similar programs. The two additional programs were the Aircraft Ground Fire Suppression and Rescue System (AGFSRS) chartered in 1968 and the Surface Container-Supported Distribution Systems Development Project chartered in 1971. The three projects have met with varying degrees of success. In fact, only the Mobile Electric Power Project is a going concern to date. The Surface Container Project was discontinued in June 1975, and the Aircraft Ground Fire Suppression Project is currently being phased out. I will attempt in this paper to explain why.

Specific Goals of the Project

The specific goals of my study project were to examine this approach to project management and to:

- a. Document the program for Joint Service Program Management of Mobile Electric Power acquisitions.
- b. Identify and document the unique management problems inherent in this concept of materiel acquisitions.
- c. Determine the validity of this method for other selected materiel acquisitions.

SCOPE

The scope of this study project is limited to a detailed examination of the method of operation of the DOD Mobile Electric Power Project and its successes and problems in performing the DOD Mobile Electric Power Program. In addition, the DOD Mobile Electric Power Project is compared with the DOD Aircraft Ground Fire Suppression and Rescue and the Surface Container Projects to answer the following questions:

- a. What is the method of operation within the Services for support/performance of this type of a joint program?
- b. Are there unique differences among the Services' organization for materiel acquisitions that make this type joint service management of materiel acquisitions difficult or problem prone?
- c. What problems, if any, inherent in this concept of program management are different from a more traditional program management approach?
- d. Is this type program management practicable?

Organization of the Report

This report is organized into eight sections. Basically, the report first details the background and history of the DOD Mobile Electric Power Project, then discusses the operations of the Project. Accomplishments of the Project are detailed and problem areas addressed. A comparison is then made of the Mobile Electric Power Project with the Aircraft Ground Fire Suppression and Rescue and Surface Container Projects. An evaluation of the joint service management of selected acquisitions concept is then made; and finally, the conclusions and implications are included in the last two sections.

SECTION II
BACKGROUND AND HISTORY OF THE
MOBILE ELECTRIC POWER PROJECT

In the early stages of the Vietnam buildup, it became readily apparent that a serious problem existed in supplying the electrical power requirements of a large Armed Force with its sophisticated equipments and seemingly insatiable requirements for electrical power. The problem was further complicated by operation of the force in an undeveloped country. The DOD Mobile Electric Power Project was formed as a result of a DOD directed study which examined the problem (4:1)¹:

Engine driven generator sets are and have been the main source of electric power for the Armed Forces in the field. Initially, commercial available generator sets completely satisfied all requirements. With the advent of increasingly sophisticated electric power consuming equipment, such as radios, radars, and complex weapon systems, more stable and closely regulated electric power generating equipment was required. In many instances, generator sets were designed specifically for and procured with the item or system which they were to be used. Consideration was seldom given to standard or available generator sets. This and other factors led to a proliferation of types and models in use by the Armed Forces.

Shortages of funds, rapid obsolescence resulting from advances in technology, and the utilization of commercial electrical power in garrison, placed a limit upon the quantities of generator sets being procured for immediate use, or set aside for planned deployments. These limitations resulted in the procurement of small lots which contributed to further proliferation of types and models.

¹This notation will be used throughout the paper for sources of information. The first number is the source listed in the bibliography. The second number is the page reference. Specific references to summary quotes from interview sources were purposely not shown.

The rapid deployment of units to Vietnam focused attention on a number of problems. Specifically, the problems were as follows (4:1):

- a. The shortage in quantity and quality of engine generator sets.
- b. The various military operations and differing applications requiring electrical power.
- c. The variety of engine generator sets in use.
- d. The continued proliferation of this variety.
- e. The parts support required to maintain this variety operational.
- f. The absence of a well organized plan to reduce the problem or prevent it from growing.

The DOD study resulted in a mandate to make order out of the logistical chaos by developing, fielding and maintaining a DOD Standard Family of generators. The DOD Mobile Electric Power Project was chartered in August 1967 by the Secretary of the Army (Army appointed executive agent) to exercise execution authority within the Department of Defense over the planning, direction, and acquisition of mobile electric power generating sources to insure the economic and successful execution of a balanced program. In implementing this initial direction, the Project Manager made certain basic decisions which still today reflect the essence of the program (13:4). These decisions were:

- a. To use, where possible, existing Service procedures.
- b. To establish a DOD Standard Family of generators with a high degree of commonality between kW ratings, in order to attain the desired goal of minimum repair parts.
- c. To control, at Project level, configuration management so that integrity of established designs would be assured.

d. To obtain data for reprourement of essentially identical items, to assure long-term standardization.

e. To challenge all new technical requirements, in order to discourage further proliferation, and to assure any changes accepted were mission essential.

f. To challenge each request for a special-purpose power source, to assure that it was, in fact, a necessary requirement.

g. To foster the R&D effort and guide it toward an orderly and controlled evolution of the DOD Standard Family.

The Project was made a part of Headquarters Army Materiel Command (now Army Materiel Development and Readiness Command), and the Project Manager has always reported to the Commanding General. Army Materiel Command was charged with staffing the Project. Other Services provided representative staffing. The Project was initially authorized 102 military and civilian spaces. The highest number ever assigned was 80. Accomplishment of the initial objectives of the Project has permitted the reduction of this strength to the current authorized level of 32 spaces. This number is sufficient to maintain the continuing functions of the Project.

SECTION III
METHOD OF OPERATION OF THE
MOBILE ELECTRIC POWER PROJECT

The Mobile Electric Power Project operates in accordance with a Joint Operating Procedure (JOP) (3:1-1 to 7-1). This document, other than the Project charter, is the most important document to the program. The JOP represents the working agreements among the Services and the Project Manager, Mobile Electric Power. The JOP was developed in accordance with guidance furnished by the Services.

The remainder of this section is devoted to an explanation of the way the program operates. The JOP and the chapters therein are used as a framework for the discussion.

Funding

Funding is essentially performed by the Services. Services continue normal programming and budgeting actions for procurement of generators. These funds are then channelled to the designated procurement activity by Military Interdepartmental Purchase Requests (MIPRs) as directed by the Project Manager.

Research and Development efforts are funded in a similar manner. On-going R&D efforts in the respective Services are also Service funded with overall guidance and control of the R&D effort provided by the Project Manager. Present R&D efforts are generally limited to those in the Army and funds for the program are programmed and allocated through Army channels. The Project has no financial section and even travel funds are controlled by Headquarters, Development and Readiness Command.

Procurement

The procurement functions of the Project are depicted in figure 1. Each Service has a central office charged with receiving and consolidating requirements for generators. These activities are represented by the four blocks in the center of the figure. Twice yearly, these activities receive and consolidate requirements for their service. The requirements, projected out five years, are then submitted to the Project Manager, Mobile Electric Power. The Project again consolidates the requirements into a DOD Five-Year Procurement Plan for mobile electric power generating sources and decides when a procurement action is warranted. Once a decision is made to procure, Project Manager, Mobile Electric Power issues procurement direction to one of the three current procurement activities listed at the bottom of the figure. Concurrently, Project Manager, Mobile Electric Power notifies all Services to forward funded Military Interdepartmental Purchase Requests direct to the procuring activity and also requests the appropriate technical support activity to forward a technical procurement package to the procuring activity.

Requirements are again consolidated by the procuring activity as the funded MIPRs are received. Next a solicitation is put together, dispatched to the Project Manager, Mobile Electric Power for review and once approved, is issued to industry. Bids or proposals are received, evaluated and award is made. Once award is made, the procurement activity in conjunction with the Defense Contract Administration Service (DCAS) administers the contract. The Project and the designated Service technical support activity provide technical support in the administration of the contract.

This procedure works well. There are considerable benefits in using the coordinated procurement approach and there are also disadvantages. Probably

the most significant benefit is a lower price by having the consolidated larger quantity. Obviously, logistic support is simplified; i.e., one set of manuals for all four Services, common parts among the Services and one specification for each procurement instead of four. Conversely, there are also problems. Multi-year contracts are usually used; and not infrequently, one Service cannot fund requirements ordered in the out years. This problem can place the other Services' requirements in jeopardy. Fortunately, the Project is usually able to get another Service to fund such requirements and the contract continues.

Logistic Support

Each member of the DOD Standard Family of generator sets is assigned to one of the Services for provisioning. That Service is designated the Primary Provisioning Agent (PPA) and is responsible for assuring that initial provisioning of specified DOD Standard Family of generator sets is completed in all aspects including full coordination with other Services.

FLOW CHART OF PROCUREMENT ACTIONS

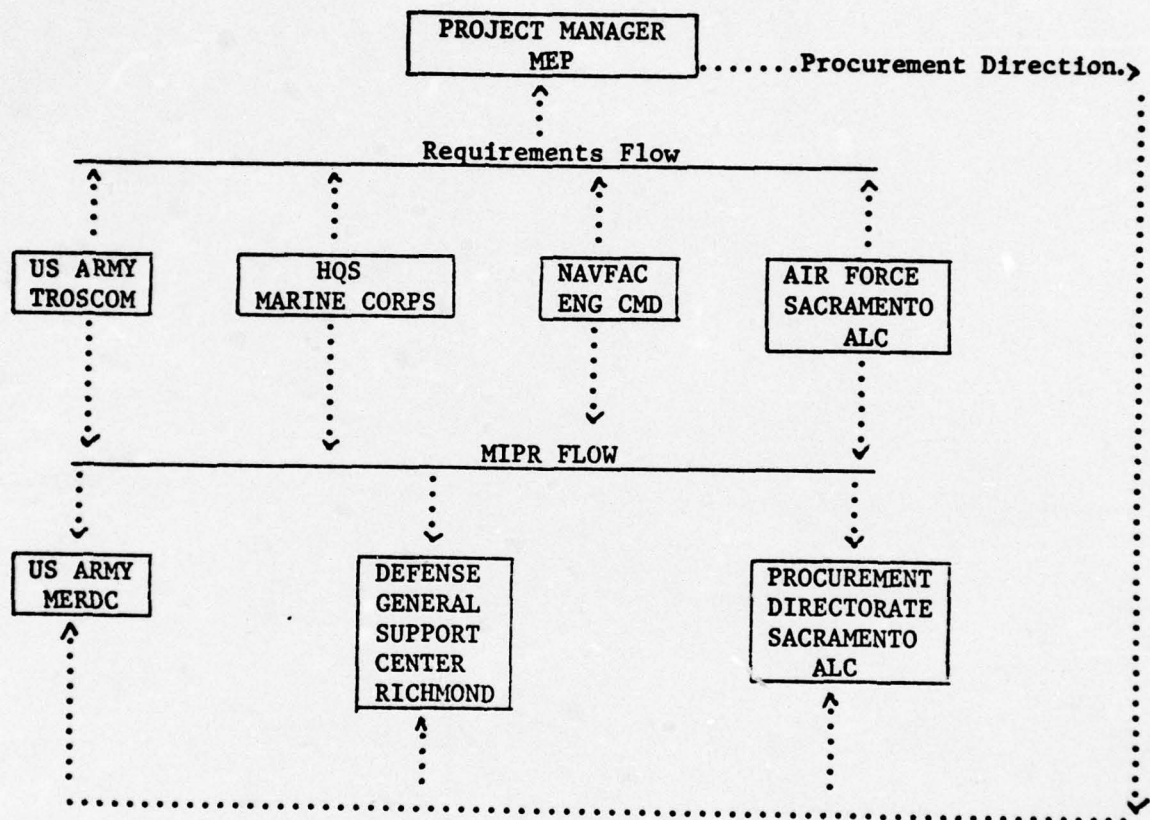


FIGURE 1

The PPA responsibilities include determining the range and quantity of items (repair parts, special tools, test equipment and support equipment) for an initial period of service. The PPA is also required to budget and fund for wholesale repair parts stocks and this is probably the biggest problem area. This is particularly true where the Service performing PPA functions does not have any requirements for the specific generator or has only a limited quantity.

Configuration Control

Project Manager, Mobile Electric Power identifies a particular Service which is responsible for performing configuration management of a specific DOD standard generator. A Configuration Control Board (CCB) made up of technical, logistic and configuration administrators from all the Services, reviews all engineering change proposals submitted on a standard set. Normally, the Project Manager, Mobile Electric Power is chairman of the CCB during the development and early acquisition phases. This responsibility can be delegated to one of the Services at any time during the life cycle of the generator.

Maintenance of a configuration baseline is complicated by the very fact that all four Services have an interest in an item. What one Service sees as a beneficial change may not seem so at all to a second Service. Further, should one or more Services fail to approve and fund an ECP on an on-going procurement, implementation may not be possible. However, Service cooperation thus far has been good, and the Project Manager has usually been able to resolve divergent views on such problem areas. The problem is further complicated by a Mobile Electric Power Project goal of maintaining the same configuration of a particular set in all Services. This is a desirable goal but one not easy to accomplish.

Problem Areas

As previously mentioned, fluctuating requirements can cause problems. This is particularly true with multi-year procurements. This fluctuation makes long-range planning difficult and, at times, can stop a procurement at the last minute--at times, just before award.

Technical requirements submitted by the Services, usually by the engineering elements, and deemed mandatory are a continuing threat to a uniform family concept. Another problem in the technical area is that Project Managers often feel they are the exception to the standardization program and must be granted deviations to meet their mission-essential requirement. Determination of power requirements early in the system design would simplify this unique problem and would probably result in the system using one of the Standard Family Generators.

Additionally, the support received from the Services in support of the Project is less than desired. In the initial stages of the Project, generators were being developed/procured for support of Southeast Asia. The Services' sense of urgency, evident in the early stages of the Project, has been lost to some extent. As will be noted in the later part of this paper, this same lack of response/interest was a major contributor to the demise of the other Projects addressed in this report. Motivation of functional specialists across Service lines is not an easy task and is probably the single most important problem inherent in this approach to project management.

Testing is another complicated issue. As an example, the Army must test and type classify generators before they can be issued to troops. The other Services have no such requirement for type classification. In some instances, generators have been fielded by the Navy, Marine Corps and Air

Force while the Army has the sets still stored in depot pending completion of type classification testing.

Other problems are also inherent in the approach. Some of these, while not serious, tend to indicate the Services were probably happier when they managed their own programs. For example, when told that all of a certain size generator would be painted olive drab prior to delivery, one Navy official said, "A decision made no doubt by an Army Colonel". The Project Manager is an Army Colonel.

SECTION IV

SUCCESS OF THE MOBILE ELECTRIC POWER PROJECT

When the DOD Mobile Electric Power Project was established in 1967, there were more than 2,000 makes and models of generators in the DOD system. Through successive reductions, this number has now been reduced to the authorized DOD Standard Family of 42 sets. However, one must realize that several more years are required before attrition of the non-standard sets reduces the inventory to the current 42 member DOD Standard Family. The Standard Family of 42 is expected to fluctuate slightly as new technologies are adopted within the Family.

At the time the Project was established, there were an estimated 800 specifications in the system covering generator sets. The number has been reduced to 7.

Figures 2, 3 and 4 depict the greatest accomplishments of the program standardization. Figure 2 depicts the 0.5 kW through 10 kW gasoline engine-driven program. These members of the family represent approximately 50 percent of the total DOD generator inventory, and these sets require only 849 different items of repair parts. Remaining parts are common among the sets.

Figure 3 shows the basic approach taken in promoting commonality with the remainder of the diesel engine-driven Standard Family, excluding the two largest sets. The items shown in the figure are specified in the set design and provide commonality throughout the 15-200 kW power range. Regardless of Service, an operator sees the identical control cubicle for 14 of the 17 diesel generators.

Figure 4 is a comparison of the number of parts required to support the 60-100 and 200 kW ratings based on the DOD Standard Family concept. Also

shown is an estimate of the parts required if individual Services managed the programs independently.

Another significant achievement has been in the number of technical manuals required. When the Project was established, an estimated 4,000 technical manuals were in print for generators. By 1973 this number was reduced to approximately 1,000, and this number will eventually be reduced to less than 100.

LOGISTICS PARTS SUPPORT GED FAMILY

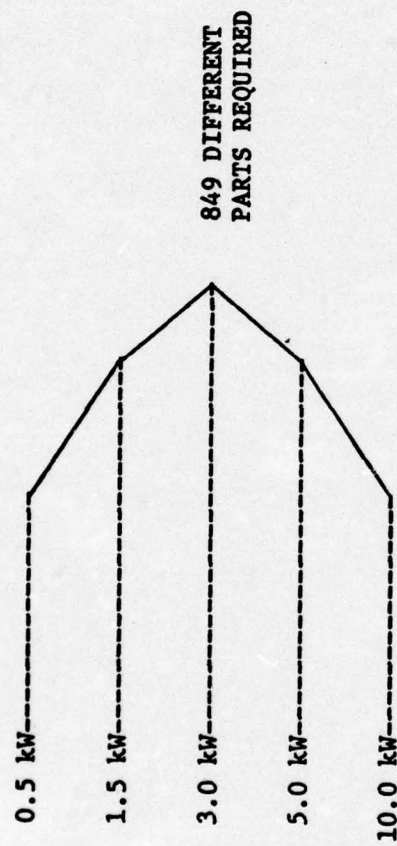


FIGURE 2

COMPONENTS SPECIFIED OR CONTROLLED BY DRAWINGS

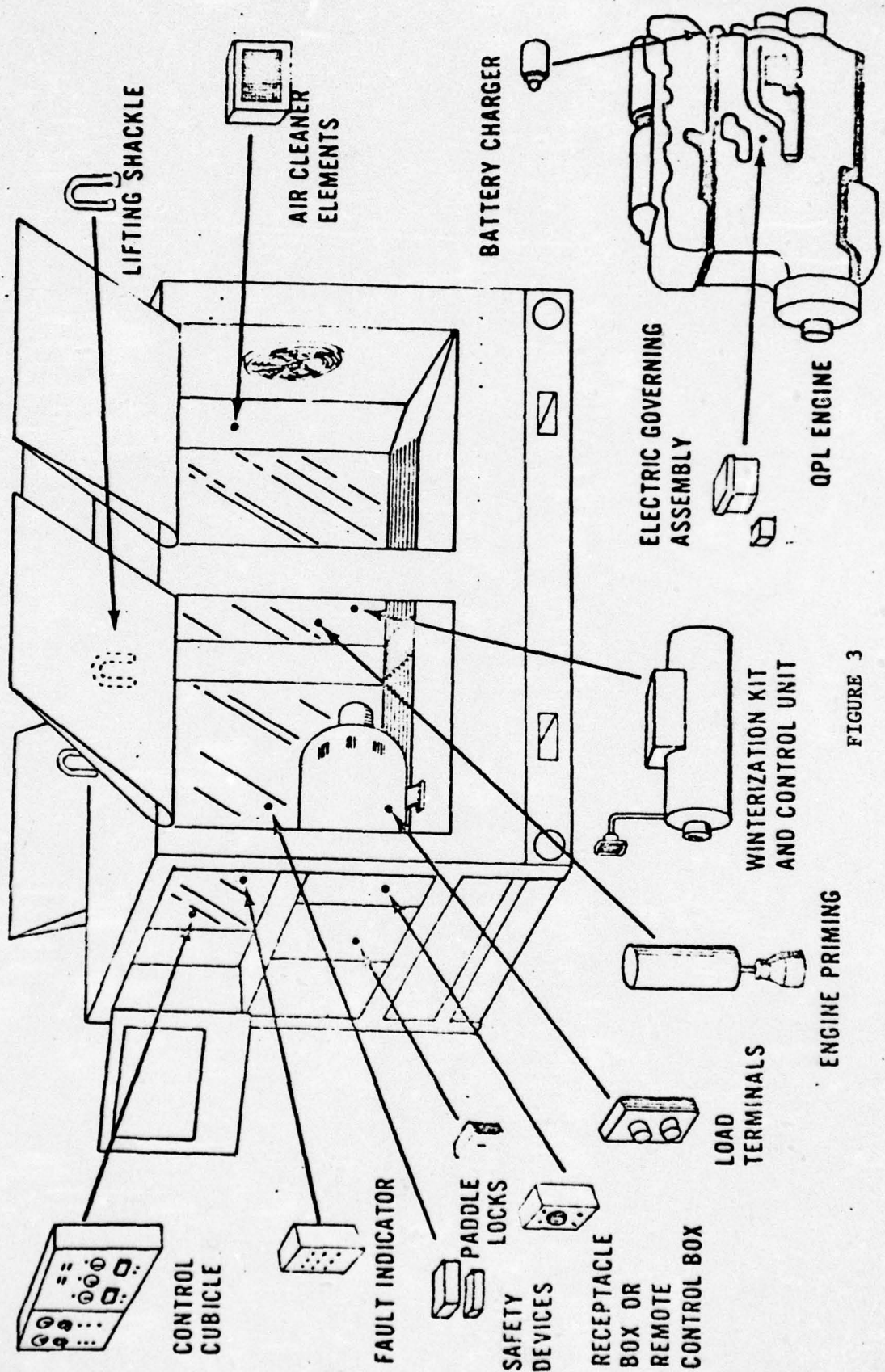


FIGURE 3

LOGISTICAL IMPACT

LOGISTICS PART SUPPORT

60 kW - 1,208
100 kW - 1,038
200 kW - 1,060

INDIVIDUAL SERVICE

X 4 SERVICES
13,224 DIFFERENT PARTS
REQUIRED

LOGISTICS PART SUPPORT

60 kW - 1,208
100 kW - 1,038
200 kW - 1,060

WITH PROJECT'S STANDARDIZATION

2,129 DIFFERENT PARTS
REQUIRED

FIGURE 4

Considerable improvements in training have also resulted from establishment of the DOD Standard Family of generators. As a result of reducing the large numbers and types of generators, personnel require training on fewer makes and models. Similarity between sets further simplifies training. Troubleshooting procedures are also simplified and standardized due to design restraints.

SECTION V

A COMPARISON OF THE DOD MOBILE ELECTRIC

POWER PROJECT WITH SIMILAR JOINT SERVICE PROGRAMS

It is my intent in this section to describe two additional Joint Service Projects which were chartered during the same time frame as the Mobile Electric Power Project. A comparison of these Projects and the success and problems experienced will be made against the same parameters for the Mobile Electric Power Project. This comparison will essentially provide the basis of my evaluation of the concept which follows in Section VI.

Aircraft Ground Fire Suppression and Rescue System Project

The next Project similar in missions and functions to the Mobile Electric Power Project was chartered in 1968 at the direction of the Secretary of Defense. The action was preceded by Congressional interest in this area and by a study of DOD Standardization of Aircraft Crash Fire Trucks which recommended establishment of the program.

The original, principal objectives of the program as stated in the Project Charter were (8:4):

- a. To effect economies by coordination of the Services' R&D requirements and development programs.
- b. To most effectively use DOD resources.
- c. To effect all possible standardization of Aircraft Ground Fire Suppression and Rescue Systems within the DOD to minimize acquisition and ownership costs.

The Air Force was appointed executive agent for the Project. The Project was located at the Aeronautical System Division (ASD), AFSC, Wright-Patterson AFB, Ohio.

The mission of the Project included management of vehicles, wheeled and hand carried extinguishers, related fire extinguishing agents and agent dispensing systems, fire prevention equipment, ground rescue systems and related accessory tools and equipment, fire protection clothing, systems and equipment that is mounted on, or transported by ground or air vehicles, and mobile tactical systems required by the U.S. Marine Corps.

The method of operation was to follow the Joint Operational Procedures (JOPs) route and was to be similar to the Mobile Electric Power Project. Specifically, the Project was charged with developing and negotiating Joint Operating Procedures which would identify and describe detailed procedures to carry out all aspects of the Project.

Funding for the program was similar to funding in the Mobile Electric Power Project in that each Service was still required to program, budget and justify funds required for exploratory and advanced development effort conducted by that Service. The Project was charged with programming, budgeting and justifying funds required for the total engineering development and operational system development program. Air Force funding channels would be used for programming these funds. Probably the most significant element of the funding as with the Mobile Electric Power Project required each Service to continue programming and budgeting for the procurement of end items for use of that Service. End items were procured by transfer of funds to the appropriate procurement activity by Military Interdepartmental Purchase Requests as is done in the Mobile Electric Power Project.

The Army and Navy were charged with assigning Senior Service Representatives/Deputy Project Managers to the Project. The Army and Navy were also charged with accomplishing functional tasks as necessary in support of the program.

The principal accomplishment of the Project to date was the standardization of the A/S 32P-4 Fire Truck. Approximately 500 of these vehicles were procured for the Army, Navy, Air Force and FMS. In early 1976, a second procurement of another fire truck was being prepared. Additionally, progress has been made in establishing a technology base which will enable identification of fire fighting needs and equipment capabilities. Collectively, these programs totaled \$2.5 million.

Obviously, similar benefits to those achieved by the Mobile Electric Power Project were possible for this Project. This was particularly true for the fire trucks being procured. However, as can be noted from the list of accomplishments, the success of this Project has been limited. Those directly involved with the program offered several reasons for this limited success. A discussion of these reasons follows:

As previously noted, the Project was to operate under Joint Operating Procedures. The charter required these procedures to be published within 180 days after the date of the charter. They were never published. My investigation into the Project never revealed a clear-cut reason why these procedures were not published. However, it is my understanding that difficulties were experienced in obtaining Services' concurrences on the procedures. There was some evidence that the Services were not satisfied with results being achieved by the Project. Seemingly, at first opportunity, the Services withdrew personnel assigned to the Project. By 1973, both Navy and Army withdrew on-site personnel and assigned the continuing mission to a focal point at U.S. Army Troop Support Command, St. Louis, Missouri and at the Naval Facilities Engineering Command in Washington, DC. This action was followed in mid-1974 by a recommendation from the Deputy Commanding General for Materiel Acquisition, Army Materiel Command and the Chief of Naval

Materiel that the Project be discontinued. Both recommended the program be managed under the DOD Standardization Program. Headquarters, Air Force and OASD (I&L) concurred and the demise of the Project began. Formal termination is scheduled for 30 June 1976.

In addition to the reluctant support of the Project by the Services, there were other reasons for the lack of success. Principally, among these was the organizational level to which the Project was assigned. As opposed to the Project Manager for Mobile Electric Power, who had a direct reporting line to the Commander, Army Materiel Command, the Aircraft Ground Fire Suppression and Rescue System Project was located as part of a major subordinate command (ASD) within the Air Force Systems Command. Additionally, the initial Project Manager was only a Lieutenant Colonel. I personally feel that a program charged with a mission of executing a program throughout DOD and located at this low organizational level could hardly be expected to achieve success. One need only examine the hierarchical chain this Project Manager had to traverse in order to wield any force on Service elements which might be reluctant to conform to the Program mandates to gain an appreciation of the problems the Project Manager faced. Persuasion and personal power can accomplish only so much. The time always arises where position power must be used. The real question is, was there really any such power in the Project?

Coupled with the coordination/interface problems with the Services, the Project also failed to receive adequate guidance and direction from DOD. About the time this Project was established, the standardization program in OASD (I&L) Standardization and Support Directorate was receiving decreased emphasis. A relatively large standardization staff had dwindled to one person

in 1973. (The program is now receiving increased emphasis). One DOD official summarized the problem of this Project essentially as follows:

The Project was essentially chartered and forgotten. Little follow-up was made on the Project for several years. Minimum progress was made. Two things added emphasis to the Project later on. One was the appointment of a civilian Project Manager who began to move the Project. The other was a renewed interest from DOD. Seemingly, the Services were content with the Project as long as it really didn't restrict their on-going efforts in this field. Once it really became active and began to dictate policy DOD wide, the Services' reluctance to follow the Project's mandates resulted in recommendations for termination.

The Air Force was charged with manning the Project. At least 40 people were needed. Twenty-eight were requested. The most ever assigned was only 14. Obviously, when one contrasts this to the 102 initially authorized and 80 assigned to the Mobile Electric Power Project, the level of support was marginal. One of those interviewed on this Project cites this as one of the major problem areas.

Surface Container-Supported Distribution Systems Development Project

In 1971, DOD established a third Project similar to the Mobile Electric Power Project. The Deputy Secretary of Defense directed establishment of the Surface Container Project based on an in-depth analysis of the logistic operations of the Services in support of U.S. Forces in Vietnam conducted by a DOD Logistics Review Board.

Originally, principal objectives of the program as listed in the Charter were as follows (9:3):

a. To ensure compatibility of the DOD Surface Container Project with those elements of the commercial industry with which the container systems must interface.

b. To provide optimum commonality and interchangeability of systems equipment and procedures throughout the DOD.

The Army was appointed executive agent for the Project, and the Project was located at Headquarters Army Materiel Command (now Army Materiel Development and Readiness Command). Necessary facilities, administrative support and personnel manning were provided by that Command. The Project Manager reported to the Commanding General, Army Materiel Command. A Logistic Systems Policy Committee (LSPC) composed of representatives of each of the Military Services, the Defense Supply Agency, the Director, J-4 (Logistics) Joint Staff and OASD (I&L) provided broad policy guidance to the Project Manager as required. The Services were also required to provide personnel to the Project with the Navy charged with providing the Deputy Project Manager.

The method of operation of the Project was also to be by Joint Operating Procedures. Also, in this instance, they were not published. A Project Master Plan which outlined Project milestones was published and approved by OASD (I&L). Concurrent with the approval, a Project termination date of June 1974 was established.

Funds for the developmental efforts were to be programmed through Army funding channels with individual Services' developmental efforts and procurements programmed and funded by the responsible Service.

I experienced some difficulty in determining actual accomplishments of the Project. Apparently, the list of accomplishments were not significant, and this lack of success was the major reason for the early termination of the Project. One DOD official summarized the problem essentially as follows:

One of the principal reasons for establishing the Project was for the development of standard equipment, policies and procedures that could be used by the Military Services to exploit the full potential of surface container-supported distribution systems. The commercial shipping companies have essentially developed that kind of system independently of the Project's efforts. There are a couple of areas which required additional effort. These are handling containers in undeveloped countries without container ship ports and

container shipment of ammunition. Since these two efforts were already the responsibility of the Army and Navy and the Project was really not adding much to the effort, a decision was made to proceed with the scheduled termination of the Project.

The phase-out of the Project actually began only two years after establishment. The Project at that time was staffed with 28 military and civilians with representatives from all Services. In September 1973, the Commanding General, Army Materiel Command, requested a one-year extension of the Project past the original termination date of June 1974 to June 1975. OASD (I&L) reluctantly agreed, noting that it was time to recognize the operational responsibilities of the Transportation Operating Agencies in this area. Concurrent with the approval, OASD (I&L) directed the Project manning levels be cut to only eight spaces and requested a plan for termination of the Project be developed. Such a plan was developed; and though there were some attempts to continue the Project beyond the 30 June 1975 termination date, it was in fact terminated as OASD (I&L) had directed. The fact all tasks were not completed is evident by the chartering of a new Army Project in February 1976 to complete on-going containerization projects previously managed by the original Project.

In actuality, the DOD effort was not terminated but was moved to OASD (I&L) where it probably belonged in the first place. Essential functions of the Project are now being performed by a DOD Container Systems Standardization/Coordination Group (CSSCG) which was established on the termination of the Project (6:9). The CSSCG functions under the Director for Transportation and Warehousing, OASD (I&L) and is composed of members from each of the Services. The group performs many of the functions previously assigned to the DOD Project Manager for Surface Container Distribution Systems.

As previously noted, this Project also had difficulty in getting Joint Operating Procedures published. There were also indications that the Services' acceptance of the Project from the beginning were less than satisfactory. One General Accounting Office official studying the problem noted:

The Services recognized the importance of the effort. All of the Services concurred in requesting the one-year extension, and in fact all wanted the Project to continue, however, not operating at the Army level. Services' preference was for DOD to truly manage the program and from that level, and that was finally what was done.

The foregoing paragraph illustrates one of the problems with this concept of Project management. Once a Project is chartered and placed with one of the Services as executive agent, the other Services tend to view it as an "Army" or "Air Force" Project. To some extent, this is a valid criticism and is one of the more significant problems to overcome if the program is to be successful.

SECTION VI

AN EVALUATION OF THE JOINT SERVICE PROGRAM OFFICE

CONCEPT FOR SELECTED MATERIEL ACQUISITIONS

This study of the three unique Projects and the attempt at management of a particular area or commodity for all of DOD by a single Project Manager has surfaced several issues/problems inherent in this approach. The following paragraphs are devoted to a discussion of these issues/problems.

Probably the most significant problem with this approach is the difficulty a Project Manager has in obtaining cooperation and support from the diverse elements throughout the Services which are involved in the program. Cooperation and support is essential if the program is to be successful. The integration problem is horrendous. The hierarchical chain-of-command is complicated and in actuality runs up through the OSD level from the Project Manager and down from the Service Headquarters to the elements in the Service supporting the Project. As one would expect, the formal chain is seldom used in forcing acceptance of the Project Manager's mandates. The same is generally true for using the power of the major Commanders to force compliance. The Project Manager of a Project with a DOD mission must rely on his power of persuasion and his personal abilities to gain the Services' acceptance of his program. Obviously, this method of operation works better for some Project Managers than it does for others.

Another problem is funding. The Project Managers for the three Projects addressed in this report had little to no control of funds required to execute the programs. The respective Services, for the most part, programmed, budgeted and controlled funds. As an example, before any of the three Projects could effect a procurement, Service controlled funds had to be transferred to the appropriate procurement activity. There is considerable power in the control

of funds. This problem is unique to this type Project and requires extensive coordination by the Project Manager to assure that the funds are in fact used in a manner consistent with his Project goals.

Maintenance of any semblance of standardization is complicated by the Services' insistence on unique requirements for a specific item. To preclude loss of standardization and to assure one Service's requirement does not inordinately increase the price of an end item for all Services, the Project Manager is often forced to mandate the configuration. Acceptance of such rulings is often less than desirable by the Services.

Balancing the total Services' end item requirements into a single contract is sometimes difficult. Requirements are often submitted at the last minute or even after a contract is awarded. Services are frequently not able to meet funding commitments on a coordinated procurement which can result in cancellation of a contract and loss of other Services' requirements. Conversely, the ability to perform trade-off of end items on a contract between the Services is a distinct advantage.

Unique procedures within the Services regarding testing, equipment modifications, warranties, transportation and handling and other logistical support considerations wreck havoc with the Project Manager's attempts to balance his program among all the Services' desires. However, it must be noted that these are the areas where the maximum benefits from standardization are realized.

Use of the joint Service management approach as discussed in this paper is also expensive in terms of personnel required. There are several areas where standardization would be beneficial using this approach; however, the Services probably could not afford the personnel resources to man a large number of such programs. One DOD official acknowledged the considerable

success achieved by the Mobile Electric Power Project but also noted the significant number of personnel originally assigned to the Project (80 were initially assigned).

SECTION VII

CONCLUSIONS

The joint Service project management approach for selected materiel acquisitions is seemingly a viable concept; however, the unique management problems inherent therein make this method much less desirable than the more traditional form of project management. There are several areas within DOD which could be managed in this manner. Air compressors, air conditioners, forklifts, and construction equipment are examples. The benefits through the standardization of these commodities would be significant.

The limited success with this approach thus far would indicate that a careful study of the potential for success of any future attempts be made before the concept is attempted again. Further, it must also be realized that support and some direct involvement are required from the Services' major command levels and OSD if the Project is to be successful.

Also, this method of operation requires a considerable number of personnel. Regardless of this disadvantage, the approach can be cost effective if a successful program is realized. A positive indication that the Services are prepared to provide the necessary staffing should be established before a Project is chartered. Where possible existing Service functional personnel should be made a part of the Project.

The similarities among the Services in many areas are significant. These similarities do offer potential benefits through standardization efforts of the type addressed in this report. However, one must also consider the differences. These differences, including an inherent desire to maintain Service integrity in all areas, are frequently more important than the similarities. The differences can wreck a joint program.

SECTION VIII

IMPLICATIONS

I have purposely omitted any recommendations and gone on to the implications. I feel any recommendation should really address the feasibility of the project management concept discussed in this paper. My limited research into this management approach is really insufficient to make a recommendation on the future use of this method. However, I do feel that the problems and issues I have surfaced and reported are valuable lessons learned with this unique approach to program management. Hopefully, the study can be of benefit to decision makers who would attempt this approach to project management in the future.

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